

Class Title: Hydrologist IV
Organizations/Work Settings: Various State Agencies

Class Code: 77733
Class Established: 07/18/73
Revised: 01/25/94
Pay Grade: 23

WORK DESCRIPTION:

Supervises hydrological and professional level staff in a Hydrology Unit or other similar unit, OR serves as a senior level staff member planning, directing, and overseeing hydrologic projects of considerable complexity, often as head of a project team, OR serves as a hydrologist possessing expert knowledge in a specialty field such as modeling, geophysics, geochemistry, or water rights law and responsible for work of extreme complexity in that field. In these capacities is responsible for defining objectives and directing efforts on large and complex hydrologic studies; recommending policy, procedures and regulations for pertinent agency programs; reviewing and developing technical documents; proposing rules and guidance documents to assure compliance with technical standards and legal requirements; providing direction and coordinating efforts on large technical or complex studies and reports.

WORK CONDITIONS:

Office environment with occasional overnight travel for meetings or field work. Field activities may necessitate exposure to variable weather conditions and to hazardous materials or conditions.

SUPERVISION:

Under general direction of a Water Resource Manager or an Environmental Program Manager or Assistant Director, exercises considerable independent judgment in interpreting and applying hydrologic principles, technical standards, rules, policies and strategies; developing and reviewing technical documents; and directing and conducting independent hydrologic investigations of state water resources.

KNOWLEDGES APPLIED:

Principles of groundwater and surface water flow systems, geology, hydraulics, mathematics, chemistry, water sampling and interpretation; computer hydrologic analysis techniques, vadose zone processes, water quality principles, technical standards, and well drilling and sampling techniques; surveying, geophysics, and the environmental impacts of waste disposal on soils and water; meteorology and biology as

WORK RESULTS/PRODUCTS:

Approved technical and policy documents, standards, rules and strategies relating to water resource and surface and groundwater quality issues; approved technical solutions to complex water quantity and quality problems; and functional work unit or project team.

RESPONSIBILITY:

Soundness of technical judgment used in all work; timely and accurate completion of work assignments requiring considerable technical expertise; scheduling and prioritizing assignments; scheduling and reviewing the work of technical unit professional staff or project team members.

AUTHORITY:

Define objectives and make decisions regarding development and implementation of water resource programs; interpret and apply rules, policies and strategies consistent with state statutes, regulations, and agency goals; approve or disapprove technical documents and scopes of work; write and/or approve contract scopes of work, amendments and contract deliverables; approve or disapprove permits, compliance actions and remedial actions; negotiate settlement of highly complex, sensitive and/or visible hydrological problems/issues; and supervise and coordinate efforts of staff or project team members.

SKILLS APPLIED:

Applying hydrologic principles and methods to direct complex projects involving the analysis of surface water and groundwater quantity and quality problems; analyzing and synthesizing hydrologic and water quality data; applying surface and subsurface monitoring instrumentation in water resource problems; developing, directing, evaluating and implementing water resource management, conservation, water quality, hazardous waste and remedial programs; directing staff or project team members; establishing and maintaining effective working relationships with agency staff, governmental officials, the regulated community and the public; and communicating verbally and in writing to lay persons and professionals.

related to hydrologic problems; water rights law and administration as relates to State interests; regulatory requirements, project management principles, and program development techniques; and principles of supervision.

WORK ACTIVITIES (Characteristic Tasks) - MAJOR and minor:

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RESPONSIBLE FOR WORK OF CONSIDERABLE DIFFICULTY EITHER AS: 1) A SUPERVISOR OF A HYDROLOGY OR SIMILAR UNIT COMPOSED OF HYDROLOGICAL AND PROFESSIONAL STAFF MEMBERS, 2) A SENIOR LEVEL STAFF MEMBER PLANNING, DIRECTING, AND OVERSEEING HYDROLOGIC PROJECTS OF CONSIDERABLE COMPLEXITY, OFTEN AS A HEAD OF A PROJECT TEAM, OR 3) A HYDROLOGIST POSSESSING EXPERT KNOWLEDGE IN A SPECIALTY FIELD SUCH AS MODELING, GEOPHYSICS, GEOCHEMISTRY, OR WATER RIGHTS LAW AND RESPONSIBLE FOR WORK OF EXTREME COMPLEXITY IN THAT FIELD.

DEVICES A SCHEDULE OF WORK OR ITINERARY, AGENDA OR TIMETABLE FOR SUBORDINATES ON A DAILY OR WEEKLY BASIS, WITHIN A WORK UNIT.

RESOLVES PROBLEMS AND QUESTIONS PRESENTED BY SUBORDINATES REGARDING WORK METHODS AND PROCESSES.

INSTRUCTS, GUIDES AND COUNSELS SUBORDINATES IN CARRYING OUT A VARIETY OF TASKS.

REVIEWS, VERIFIES OR INSPECTS WORK OF SUBORDINATES FOR QUALITY CONTROL.

DEVELOPS PROGRAM GOALS, OBJECTIVES, STRATEGIES, POLICIES AND PROCEDURES IN WATER RESOURCES PROGRAMS.

REVIEWS TECHNICAL AND POLICY DOCUMENTS TO INSURE ACCURACY AND APPROPRIATENESS OF TECHNICAL PROPOSALS AND SOLUTIONS WITH RESPECT TO SOUND HYDROLOGIC PRACTICE.

ANALYZES DATA, COLLECTS ADDITIONAL DATA AS NEEDED, AND SYNTHESIZES INTO A COHERENT, WORKABLE APPROACH TO WATER RESOURCE QUANTITY AND QUALITY PROBLEMS CONSISTENT WITH LEGAL AND TECHNICAL STANDARDS.

DEVELOPS DOCUMENTS SETTING OUT POLICIES, GUIDANCE AND TECHNICAL SCOPES OF WORK RELATING TO WATER RESOURCES.

CONFERS WITH AND ADVISES REPRESENTATIVES OF LOCAL GOVERNMENT, INDUSTRY OR THE PUBLIC ON TECHNICAL ISSUES RELATING TO WATER MANAGEMENT, CONSERVATION, AND QUALITY PROBLEMS.

READS AND INTERPRETS TECHNICAL JOURNALS AND REPORTS, FEDERAL AND STATE STATUTES, CODES AND RULES FOR APPLICATION TO WORK ASSIGNMENTS.

ATTENDS AND PARTICIPATES IN PROFESSIONAL MEETINGS, CONFERENCES AND PROFESSIONAL DEVELOPMENT OPPORTUNITIES.

Authors scientific reports for publication or for administrative use on the results and conclusions of studies and investigations.

Reads, examines and reviews reports prepared by subordinate workers; makes corrections, adjustments, raises questions, routes back to writer or approves.

Performs related work as required.

MINIMUM QUALIFICATIONS:

Bachelor's degree from an accredited college or university with a major in hydrology, civil engineering, geology, watershed management or a related field and six years of hydrologic experience; a Master's degree in one of the above field substitutes for one year of the required experience; a Ph.D. in one of the above fields substitutes for two years of required experience.

Special Selection Factors:

Some positions may require registration as a professional engineer in the State of Arizona.